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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/807,390

03/24/2004

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018775-897

3315

21839 7590 06/14/2007
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POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

HUNG, YUBIN

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

06/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/807,390

Applicant(s)

OZAWA ET AL.

Examiner

Yubin Hung

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/24/04, 10/31/05</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because "converse" in the blocks of ref. S46 in Fig. 5 and S65 in Fig. 12, respectively, should have been "convert." Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 5 and 6 are objected to because of the following informalities:
- Claim 5, lines 2 and 3: "part of coded data" should have been "part of the coded data"
 - Claim 6, line 4: "retracted" appears to be a typo; consider changing it to "extracted"

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 6 recites the limitation "the area" in the last line. Since from lines 3-4 of the claim there can be more than one area constituting the index file (because "each area" instead of "the area" is used in line 4), it is not clear which one is being referred to, ambiguity arises and the mete and bound of the claim cannot be ascertained. [Note that, more specifically, lines 3-4 seem to imply that there can be more than one area constituting the index file, and all are from the same source file. However, the last two lines seem to imply that each area has its own corresponding source file. Note further that the last line seems to imply that each and every one of the one or more area "on" the image index displayed are selected. If this is the case, then which selected area does the source file to be decoded correspond to?]

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. (US 2003/0113027), and further in view of Yoko et al. (English translation of JP 2002-251352, submitted as part of the IDS).

8. Regarding claim 1, and similarly claim 7, Chan discloses

- a JPEG2000 coder which codes an image data to convert it to JPEG2000 file
[Fig. 4; paragraphs 143-147]
- an XML box adder which adds an XML box that can store a specific data into a bit stream constructing said JPEG2000 file so as to be positioned in back of a predetermined level of wavelet decomposition and causes said XML box to store said XML data produced by said XML data producer
[Fig. 9, ref. 9080; Fig. 15B, ref. 15090; Fig. 17, refs. 17050 (JPEG2000 codestream, including data from all N wavelet decomposition levels), 17060 (write boxes); P. 17, paragraphs 190-192, especially lines 13-17 on the right column of P. 17, where XML box addition is disclosed]. Note that to add the XML box there necessarily has to have an XML box adder. Note further that the last level in the added codestream (ref. 17050) is the predetermined decomposition level since the number of levels (N) and the sequence of there coding are predetermined]

Chan does not expressly disclose the following, which is taught by Yoko

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- an area discriminator which discriminates an area defined by each object contained in said image data and specifies type of the object [Fig. 3, ref. 22 (the discriminator); Fig. 7, ref. S101; P. 13, paragraph 62]
- an XML data producer which performs character recognition processing on the area discriminated as that containing a character by said area discriminator to produce a text data and produces an XML data corresponding to said text data [Fig. 3, refs. 23 & 25 (together considered as the data producer); Fig. 7, refs. S102 & S105; P. 13, paragraph 63 and P. 14, paragraph 66]

Chan and Yoko are combinable because they both have aspects that are from the same field of endeavor of compression.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Chan with the teaching of Yoko as recited above. The motivation would have been because characters require higher resolution than other types of data (e.g. photographic) on the same image, as Yoko indicates in paragraph 65 on pp. 13-14.

Therefore, it would have been obvious to combine Yoko with Chan to obtain the invention as specified in claim 1.

9. Regarding claim 2, and similarly claim 8, Chan further discloses JPEG2000 decoding [Fig. 8; Paragraphs 125-128]. Regarding the selector, note that the XML (and its content) is optional (and therefore is not required for the reconstruction of the image) [P. 17, right column, lines 13-17]; therefore it would have been obvious to make the extraction and processing of an XML box optional as well, i.e., to allow a user to decide whether to select it or not. In addition, Chan discloses a selector for a user to select a

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resolution for image reconstruction [P. 10, paragraph 126, lines 1-2]. The motivation for having user select (or not select) an XML to process would have been to ensure text data in the XML (see the analysis of claim 1 above) can be properly shown (e.g., as ASCII resulted from OCR if the XML is selected or as image if not), regardless of the display resolution [P. 10, paragraph 126, lines 4-5]. Regarding the XML data processor, the inclusion of which would have been obvious since if XML box is user-selectable for processing then such a processor obviously is needed.

10. Claims 3-6, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. (US 2003/0113027), and further in view of Yukihiro et al. (English translation of JP 2000-251061, submitted as part of the IDS).

11. Regarding claim 3, and similarly claim 9, Chan discloses

- a JPEG2000 coder which codes an image data to convert it to JPEG2000 file
[Fig. 4; paragraphs 143-147]
- an XML box adder which adds an XML box that can store a specific data into a bit stream constructing said JPEG2000 file so as to be positioned in back of a predetermined level of wavelet decomposition and causes said XML box to store said XML data produced by said XML data producer
[Fig. 9, ref. 9080; Fig. 15B, ref. 15090; Fig. 17, refs. 17050 (JPEG2000 codestream, including data from all N wavelet decomposition levels), 17060 (write boxes); P. 17, paragraphs 190-192, especially lines 13-17 on the right column of P. 17, where XML box addition is disclosed]. Note that to add the XML box there necessarily has to have an XML box adder. Note further that the last level in the added codestream (ref. 17050) is the predetermined decomposition level since the number of levels (N) and the sequence of there coding are predetermined]

Chan does not expressly disclose the following, which is taught by Yukihiro

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- an area discriminator which discriminates an area defined in each of objects contained in said image data and acquires a position information of the area and an (XML) data producer which produces (XML) data corresponding to position information of each area discriminated by the area discriminator
[Fig. 1, ref. 6 (save the position information); P. 8, lines 6-8. Note that per the analysis of claim 1 above Chan discloses the use of XML box to store information and it would have been obvious to use this JPEG2000 functionality to store the position information to make such information readily available during decoding]

Chan and Yukihiro are combinable because they both have aspects that are from the same field of endeavor of compression.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Chan with the teaching of Yukihiro as recited above. The motivation would have been to save processing time and memory utilization, as Yukihiro indicates in paragraphs 9-11 on pp. 14-5.

Therefore, it would have been obvious to combine Yukihiro with Chan to obtain the invention as specified in claim 3.

12. Regarding claim 4, and similarly claim 10, Chan further discloses JPEG2000 decoding [Fig. 8; Paragraphs 125-128] and Yukihiro further teaches obtaining and storing the positions of the coded areas in the overall coded data [P. 9, paragraph 29, lines 4-6]. To take advantage of the stored position information, it would therefore have been obvious to have a position acquirer to extract such information from the code XML box (where such information is stored, per the analysis of claim 3), having a specifier to

specify coded data in the JPEG2000 codestream and having a cutter to extract the specified code data. (Without them, the desired data cannot be extracted from the codestream without decoding the entire code stream and the effort in the coding process to determine and store position information in XML boxes will be wasted, as would have been obvious to one of ordinary skill in the art. Therefore it would have been obvious to modify Chan with the teachings of Yukihiro as recited to obtain the invention of claim 4.)

13. Regarding claim 5, Chan further discloses a selector for a user to select a resolution according to the desire display resolution [P. 10, paragraph 126, lines 1-5].

14. Regarding claim 6, note that it is well known in the art that JPEG2000 supports the inclusion of a URL box that specifies the location of a source file in a JPEG2000 file and also that an XML box can contain vendor-specific information (such as an URL specified by the vendor), it would have been obvious to have an adder to add either a URL box or an XML box containing the source file location (the use of either is a matter of design choice since both perform the same function and the advantage of one over the other has not been disclosed in the instance application) so as to be able to obtain the desired data when needed.

Conclusion and Contact Information

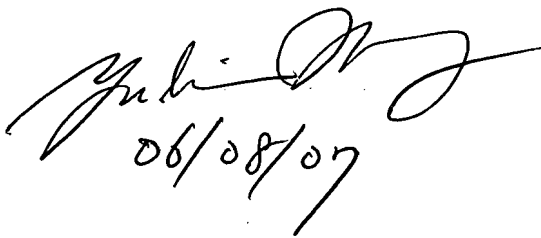
15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- ISO/IEC 15444-1 (JPEG 2000, Part 1: Core Coding System), PP. 176 and 180
- Berkner et al. (US 2004/0146199 A1) – discloses detecting different types of data in an image and applying OCR to text data [Figs. 1-3 & 13]
- Gormish (US 6,043,802) – discloses resolution reduction techniques for displaying document on a monitor
- Silverbrook et al. (US 7,079,712) – discloses using XML boxes in a JPEG2000 file to store text data [Col. 29, line 40-Col. 30, line 19]
- Fukuhara et al. (US 2001/0028404 A1) – discloses using XML and URL boxes in a JPEG2000 file [Figs. 8 & 9; paragraph 60]

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yubin Hung whose telephone number is (571) 272-7451. The examiner can normally be reached on 7:30 - 4:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew C. Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Yubin Hung', is written above the date '06/08/07'.

Yubin Hung
Patent Examiner
Art Unit 2624
June 8, 2007